

NCES Information and Capabilities Presentation

Prepared for FORCEnet Engineering Conference



Informed. Aware. Ready.

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Overview

- **What is NCES?**
- **Nine Core Enterprise Services (CES) distributed across four NCES Product Lines**
- **Description of the Four Product Lines and Capabilities in Each**
- **Increment I Schedule**
- **Acquisition Strategy**
- **Deploying NCES**
- **NCES - Where we are**
- **The NCES Pilot Environment / Getting Involved**

What is NCES?

NCES enables information sharing by connecting people/systems who have information* with people/systems who need information

- For people who *have* information, NCES provides global information advertising and delivery services
- For people who *need* information, NCES provides global services to find and receive information

NCES relies upon an underlying communications transport network (DISN, GIG-BE, JTRS, etc.)

* Information – data and services

NCES Solves Warfighter, Business, and Intelligence Community Problems...



Application

User
Assistant

Storage

Messaging

IA/Security

Discovery

Collaboration

Mediation

Enterprise
Service
Management
(ESM)

Core Enterprise Services (CES)

Turning Services into Capabilities

9 Core Enterprise Services



Discovery: Search, locate or publish data (content), other capabilities (services), or users across the GIG.

IA/Security: Authorizes and authenticates GIG users to ensure the confidentiality and integrity of information and services.

Mediation: Translates, brokers, aggregates, fuses or integrates data into commonly understood formats.

Messaging: Distributed, machine-to-machine messaging for notifications and alerts.

Enterprise Service Management: Monitor/manage GIG Enterprise Services against operational performance parameters to ensure reliability and availability of critical capabilities.

Collaboration: Allows users to work together securely on the network by way of video, audio, text chat, white boarding, online meetings, work groups, application sharing.

User Assistance: Provides automated “helper” capabilities and user preferences to help maximize user efficiency in task performance.

Storage: Provides physical and virtual places to host and retain data for purposes such as content staging, continuity of operations, or archival.

Application: Provides the resources necessary to provision, operate and maintain NCES capabilities.

NCES Product Lines and Capabilities

Product Lines and Objectives

SOA Foundation

Provides DOD's software foundation for interoperable computing

Enterprise Collaboration

Enables synchronous communication and file sharing among users

Content Discovery and Delivery

Provides information advertisement, discovery, and efficient delivery

Defense Online Portal

Provides personalized, user-defined, web-based presentation capabilities

Core Enterprise Services

Discovery

Mediation

Collaboration

Messaging

Enterprise Service Mgmt

Application

Storage

User Assistance

IA/Security

NCES SOA Foundation Product Line Description:

SOA Foundation consists of software and guidance that enables DoD programs and systems to secure, publish, find, and manage GIG enterprise services.

Summary of Increment I Capabilities:

- Service Security
- Enterprise Service Management
- Service Discovery
- Machine-to-Machine Messaging
- Mediation
- Metadata Registry
- People and Device Discovery

NCES SOA Foundation Product Line Capabilities Description:

- **Service Security:** Provides services to create, manage and enforce access control policies for GIG enterprise services.
- **Enterprise Service Management:** Provides services to monitor and manage GIG enterprise services. Provides reporting of SLA/QoS information to GIG enterprise service consumers.
- **Service Discovery:** Provides services to publish and find GIG enterprise services registered and categorized in an enterprise registry.
- **Machine-to-Machine Messaging:** Provides services to support reliable information exchange at the machine level.
- **Mediation:** Provides services to support translation between different message formats. Supports the creation and implementation of process workflows across the enterprise.
- **Metadata Registry:** Provides ability for Enterprise systems to discover & manage various metadata artifacts. Promotes data visibility and reusability. Repository for metadata.
- **People and Device Discovery:** Provides services to publish and find information on GIG users and connected devices.

NCES Content Discovery & Delivery (CD&D)

Product Line Description:

Content Discovery and Delivery is the set of guidelines, specifications, and software to publish, find, and efficiently deliver information to GIG users and enterprise services.

Summary of Increment 1 Capabilities:

- Federated Search
- Enterprise Catalog
- Data Source Integration
- Enterprise Content Delivery Network

NCES Content Discovery & Delivery (CD&D)

Product Line Capabilities Description:

- **Federated Search:** Provides services to find and aggregate information across GIG enterprise data sources.
- **Enterprise Catalog:** Provides services to store and retrieve metadata published from GIG enterprise data sources.
- **Data Source Integration:** A set of guidelines and specifications that describe how to create GIG enterprise data sources for access via NCES Federated Search.
- **Enterprise Content Delivery Network:** Provides services to store, cache, and forward-stage information for fast access.

NCES Defense Online (DOL) Portal Product Line Description:

Defense Online Portal is a web-based portal that provides secure, personalized access to information, tools, and enterprise services posted on the GIG.

Summary of Increment I Capabilities:

- Content Discovery User Interface
- Collaboration User Interface
- User Profiling and Customization Interfaces

NCES Defense Online (DOL) Portal Product Line Capabilities Description:

- **Content Discovery User Interface:** Enables GIG users to find and retrieve data from GIG enterprise data sources.
- **Collaboration User Interface:** Enables GIG users to access collaborative capabilities including document sharing, text chat, and workgroups.
- **User Profiling and Customization Interfaces:** Provides GIG users the ability to customize and configure portal presentation settings based upon their preferences.

NCES Enterprise Collaboration Product Line

Description:

Enterprise Collaboration is a set of web-accessible software that enables GIG users to deliver presentations, view, edit and graphically annotate documents, share applications, and collaborate in real-time with remote co-workers.

Summary of Increment I Capabilities:

- Session Management
- Presence and Awareness
- Text Collaboration
- Audio over IP
- Video over IP
- Whiteboarding & Annotation
- Application Sharing/Broadcasting
- Virtual Spaces

NCES Enterprise Collaboration Product Line

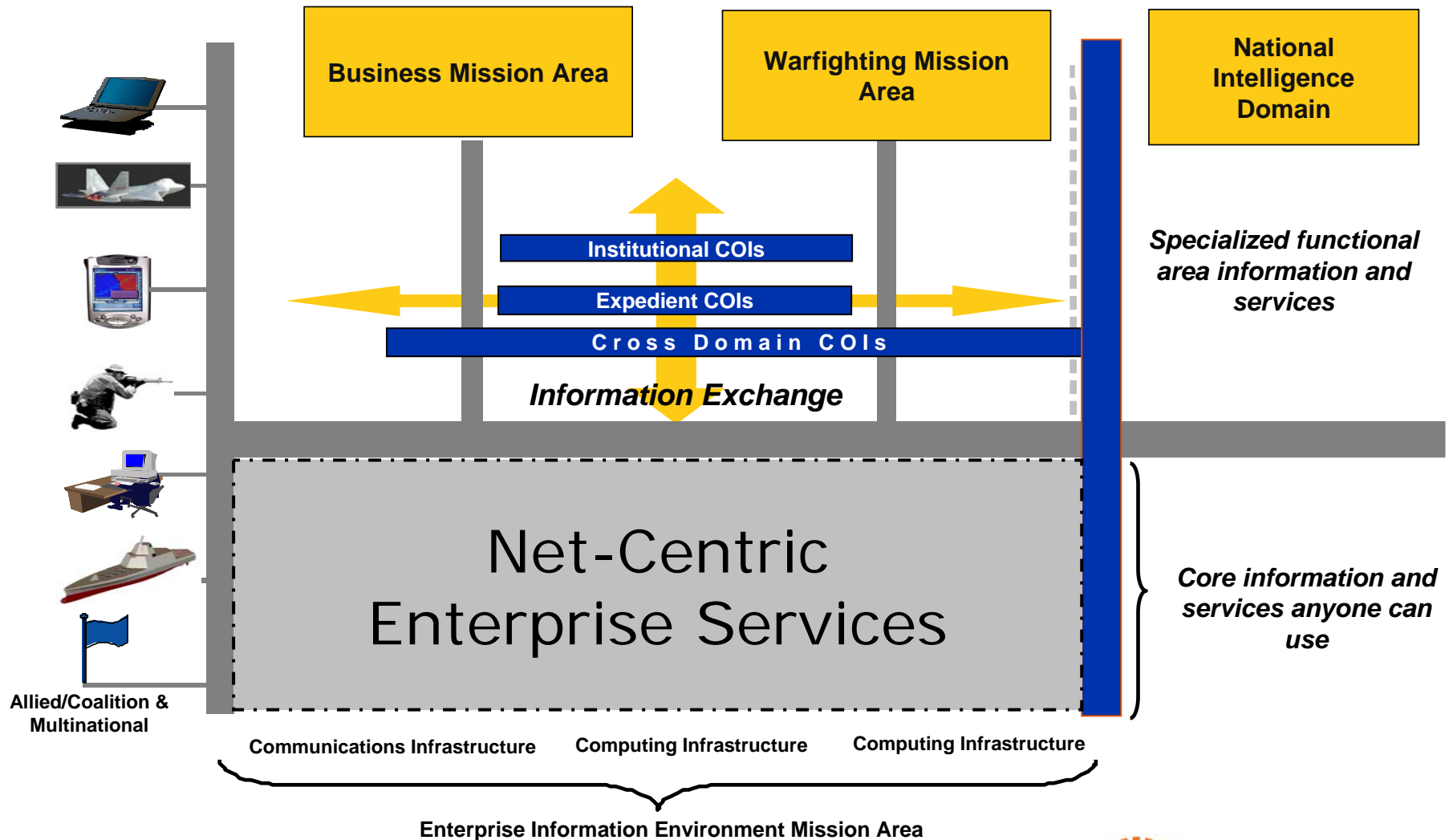
Capabilities Description:

- **Session Management:** Provides the management, customization, and control of collaboration sessions and workspaces whether ad hoc or persistent.
- **Presence and Awareness:** Provides the ability to identify GIG users available for collaboration sessions.
- **Text Collaboration (Chat & IM):** Provides the ability for authorized users to initiate and participate in text chat sessions.
- **Audio over IP:** Provides the ability for GIG users to participate in voice conferencing sessions (VOIP).
- **Video over IP:** Provides the ability for GIG users to participate in video conferencing sessions.
- **Whiteboarding & Annotation:** Provides the ability for GIG users in a collaboration session to import and annotate diagrams, pictures, and other objects for viewing by other collaboration participants.
- **Application Sharing/Broadcasting:** Provides the ability for GIG users to share and broadcast an application running on their computer as part of a collaboration session.
- **Virtual Spaces:** Provides a persistent location for GIG users to publish, manage, and retrieve files.

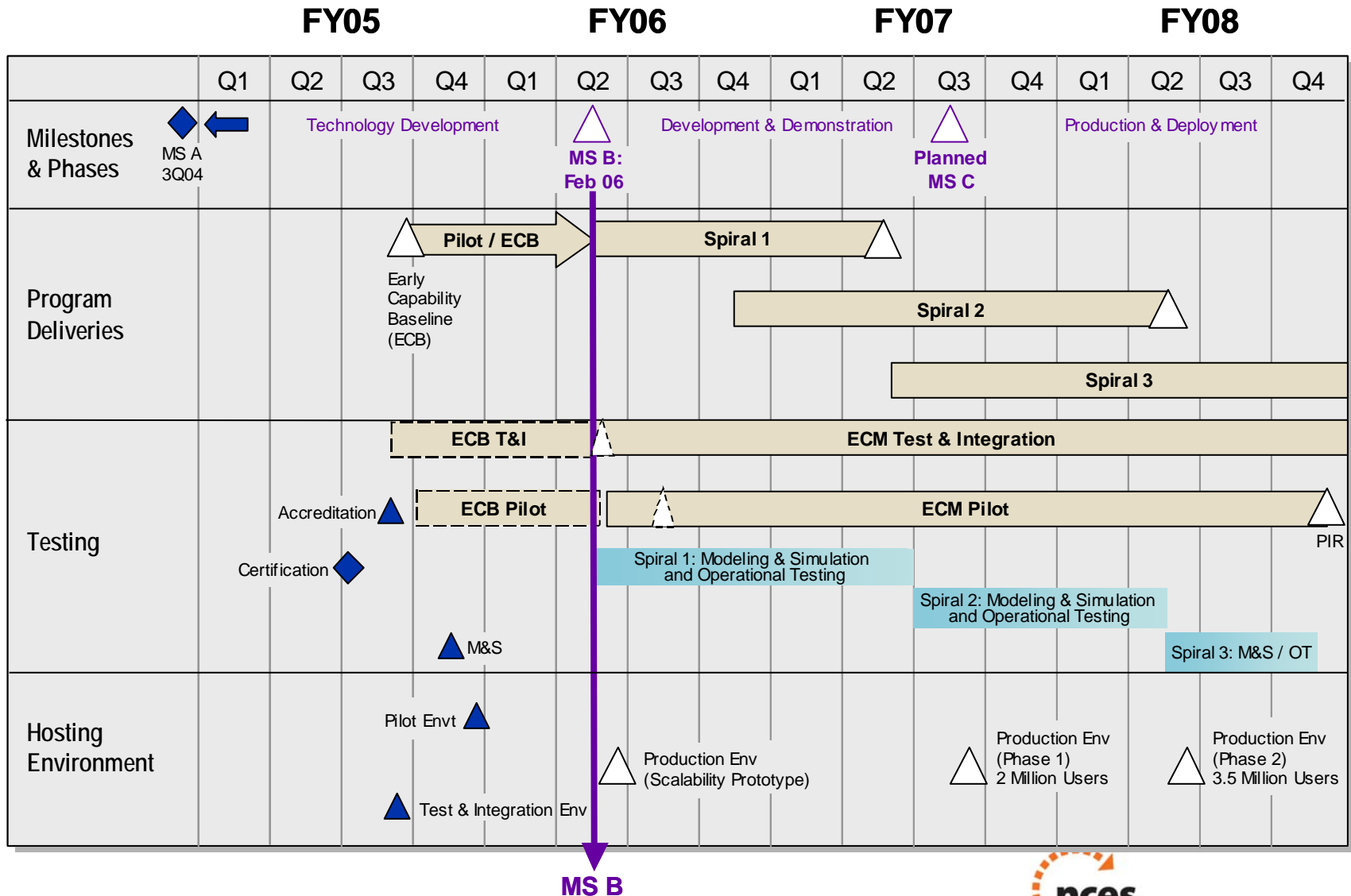
Enterprise Collaboration Service Update:

- **Successful collaboration pilot completed Sep 2, 2005**
- **Lessons learned being fed into acquisition of NCES Collaboration Services**
- **Capabilities purchased derived from NCES CDD; will be similar to Next Generation Collaboration Service (NGCS) Pilot**
- **Schedule:**
 - **Sep 30: RFI Published**
 - **Oct 24: Industry Day**
 - **Nov 18: RFQ Released**
 - **1Q FY06: Source Selection**
 - **2Q FY06: NIPRNet Service Availability**

NCES: A component of the GIG

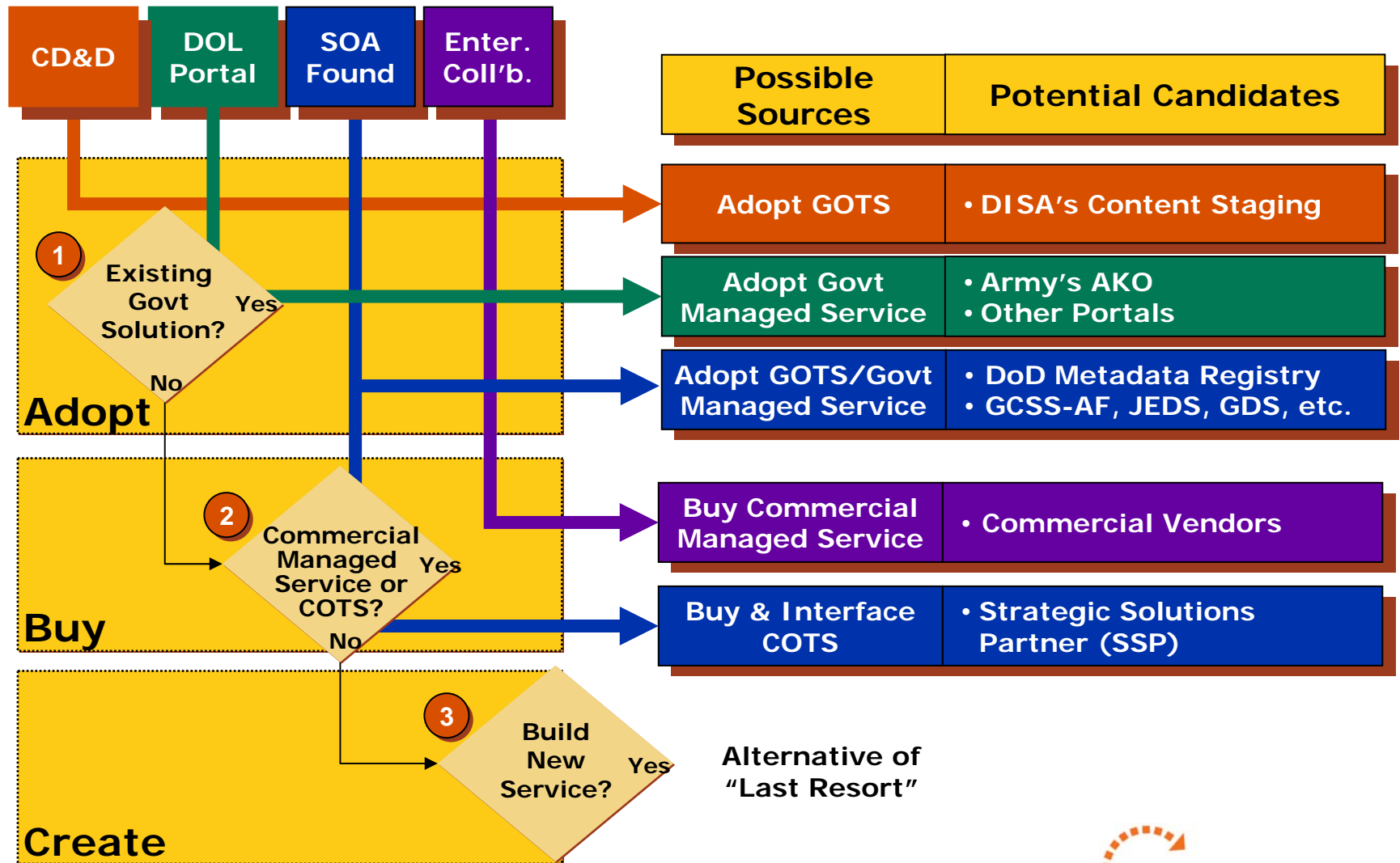


NCES Increment I Master Schedule

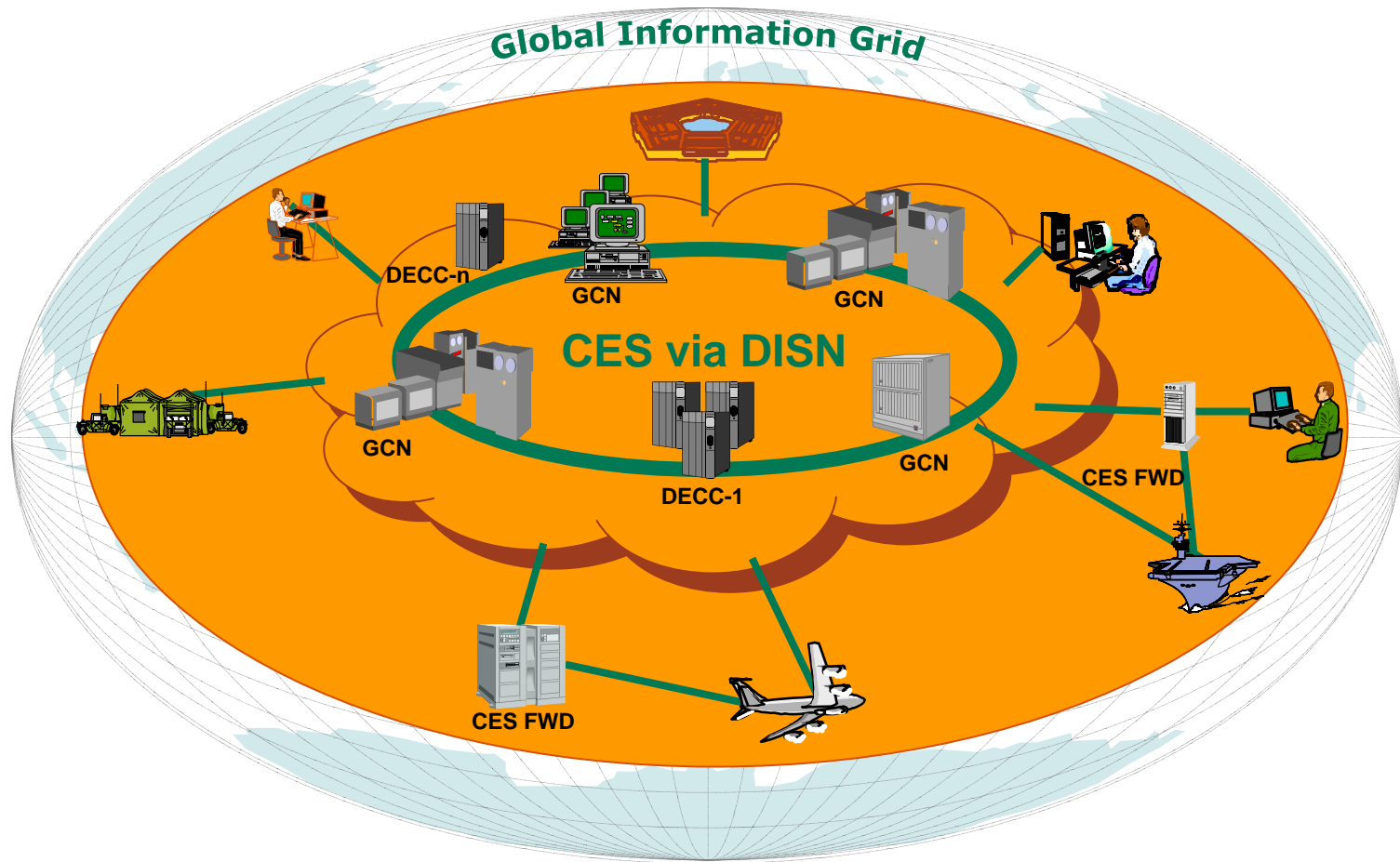


NCES Program Acquisition Strategy

Adopt – Buy – Create



NCES Deployment and Forward Staging:



CES = Core Enterprise Services
DECC = DISA Enterprise Computing Center
CES FWD = Forward Deployed or Cached CES as Required (may be all or a subset of CES)
GCN = GIG Computing Node

NCES - Where we are:

- **Technology Development Phase**
 - Targeting for a Milestone B decision in February 2006
- **Stood up Pilot Environment 25 Sep 2005**
 - Deployed Early Capabilities Baseline (ECB) to DECC-Columbus, OH
 - Available on NIPRnet and SIPRnet
- **Coordinating Memorandum of Agreement (MOA) with Army's Future Combat System (FCS) to ensure future working relationship**
- **Looking to adopt Army Knowledge Online (AKO) portal for use by Defense Online**

Pilot Environment – ‘Open for Business’

- **Overarching Objectives:**

- Test native users’ ability to navigate the interface
- Validate processes
- Gather user feedback
- Test help-desk support infrastructure

- **Early Capabilities Baseline (ECB)**

- **SOA:** Service Security, Enterprise Service Management, Service Discovery, Machine-to-Machine Messaging, Mediation, and Metadata Registry
- **CD&D:** Federated Search, Enterprise Catalog, and Enterprise Content Delivery Network
- **Defense Online Portal:** Content Discovery User Interface, Collaboration User Interface, and User Profiling and Customization Interfaces

NCES Successes – Pilot Participants:

- The NCES program began offering components of the ‘Early Capabilities Baseline’ to customers in the NIPR/SIPR environment, on 26 SEP 2005
 - Loaded STRATCOM D-SIDE operational personnel for SIPR NCES Services
 - Engaging with:
 - Intelligence, Surveillance, and Reconnaissance (ISR) -- ‘Early Adopter’ designated by OSD(NII)
 - C2 Space Situational Awareness (SSA) Community of Interest (Air Force Space Command)
 - Net-Centric Capabilities Pilot (NCCP) -- [Joint Command & Control (JC2)] (DISA GE) / Time Sensitive Targeting (TST) (USJFCOM (J6I))
 - Global Combat Support System USAF (GCSS-AF)

NCES Support for Navy Efforts:

- **Trident Warrior (TW)**
 - Content Discovery (CD) demonstrated for future use in TW events
 - Service Security (SS) and Service Discovery (SD) use also planned
- **USNAVEUR** -- CD services provided to Naval Component Commander in Naples
- **USS IWO JIMA** -- Supported CD during Operation Liberia for delivery of intel and operational update information – freed up critical C2 bandwidth
- **USPACOM** – Coordinating CD support for USS BLUE RIDGE during Terminal Fury 06 – deliver imagery, intel, and geospatial products
- **Navy Medical Online (NMO)** – Provide CD – Federated Search Web Service Software Development Kit (SDK)

Pilot Environment – To Get Involved:

- DOD community can get involved with the NCES program through multiple channels:
 - Become a **Pilot Participant** –
 - By being a Service Provider
 - By being a Service Consumer
 - By being a Data Provider
 - By being an End User
 - Being designated as an **Early Adopter**
 - Attending **WIPT / Working Group** meetings
- Details are in NCES Pilot Participants Guide



Do you want more detailed information or to become actively engaged?

1. View

- Internet: DefenseOnline.dod.mil

2. Write:

NCES@disa.mil

- NCES Pilot
- COL Gary Langston (NE4): 703-882-0805
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